II.   Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

A.   Listing of Claims

1.   (Currently Amended)   A verification result recording method for creating a verification log recording information about verification of a signature in a signature system including a signer side apparatus, a verifier side apparatus and a publishing organization side apparatus, wherein:

said signer side apparatus records a signature log entry relating to a signature created as a signer side signature log [[with]] having a chain relation;

said publishing organization side apparatus publicizes said signature log entry deposited from said signer side apparatus, records a plurality of signature log entries deposited as a publishing organization side signature log [[with]] having a chain relation and publicizes a predetermined signature log entry in said publishing organization side signature log as a newspaper publication signature log entry; and

said verifier side apparatus verifies matching of the chain relation among said signatures from said newspaper publication signature log entry to said signature log entry deposited by said signer side apparatus for publication by using said publishing organization side signature log, verifies matching of the chain relation among said signatures from said signature log entry deposited by said signer side apparatus for publication to said signature log entry relating to said verification object signature by using said signer side signature log, and records the data used for said verification as a verification log.

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2. (Original) A verification result recording method according to claim 1, wherein said data recorded in said verification log and utilized for said verification includes said verification object signature, said signer side signature log, said publishing organization side signature log and said newspaper publication signature log entry.

3. (Original) A verification result recording method according to claim 2, which includes the steps of:

extracting said verification object signature, said signer side signature log, said publishing organization side signature log and said newspaper publication signature log entry as the data utilized for said verification from said verification log;

verifying matching of the chain relation among said signatures from said newspaper publication signature log entry to said signature log entry relating to said verification object signature by utilizing said data utilized for said verification and so extracted; and

verifying said verification log.

4. (Currently Amended) A verifier side apparatus for executing signature verification, characterized by performing:

a reception ~~processing~~ process for verifying a verification object signature by using a public key of a signer;

a verification ~~processing~~ process for verifying a chain relation from a newspaper publication signature log entry as a starting point to said verification object signature by using a signer side signature log and a publishing organization side signature log; and

a verification record preservation ~~processing by~~ process for creating a verification log from data used for said verification ~~processing~~ process and recording said verification log.

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5. (Currently Amended) A publishing organization side apparatus for executing a reliability improvement processing of a signature, characterized by performing:

a publication ~~processing~~ process for publicizing a signature log entry deposited from a signer side apparatus;

a publication reminder ~~processing~~ process for urging said signer side apparatus to publicize said signature log entry;

a publication notice ~~processing~~ process for notifying said signer side apparatus of publication of a signature log entry deposited from ~~other~~ another signer side apparatus; and

a verification vicarious execution ~~processing~~ process for verifying a verification object signature by collecting data necessary for verification in place of said signer side apparatus, creating a verification log and notifying a verification result.

6. (Currently Amended) A publishing organization side apparatus according to claim 5, which executes, as said publication ~~processing~~ process:

a publication ~~processing~~ process for publicizing a signature log entry deposited from said signer side apparatus for publication;

a publication information registration ~~processing~~ process for recording information relating to said signature log entry publicized;

a notice request existence/absence confirmation ~~processing~~ process for confirming whether ~~or not~~ a publication notice request is received from other signer side apparatus as to said signature log entry publicized; and

a publication notice ~~processing~~ process for giving a notice to said other signer side apparatus when said publication notice request is received as to said signature log entry publicized.

7. (Currently Amended) A publishing organization side apparatus according to claim 5, wherein said publication reminder ~~processing~~ process executes:

an object extraction ~~processing~~ process for specifying a signer to which publication of said signature log entry is to be urged:

a reminder transmission ~~processing~~ process for transmitting a reminder document urging publication of said signature log entry to said signer side apparatus utilized by said signer specified; and

a reminder information registration ~~processing~~ process for recording transmission of said reminder document.

8. (Currently Amended) A publishing organization side apparatus according to claim 5, wherein said publication notice ~~processing~~ process executes:

a notice request content registration ~~processing~~ process for receiving said publication notice request from said other signer side apparatus and registering the content of said publication notice request to said database;

a notice requesting party extraction ~~processing~~ process for extracting information of said other signer side apparatus as a notice requesting party from said database registering the content of said notice request content; and

a notice transmission ~~processing~~ process for notifying said other signer side apparatus as said notice requesting party of publication of said publication signature log entry by said notice requesting object signer.

9. (Currently Amended) A publishing organization side apparatus according to claim 5, wherein said verification vicarious execution ~~processing~~ process executes:

a verification vicarious execution request reception ~~processing~~ process or receiving a request of verification vicarious execution from said signer side apparatus;

a verification data collection ~~processing~~ process for collecting a publication signature log entry and a signature log necessary for verification for said verification signature for which verification is requested;

a signature verification ~~processing~~ process for verifying said verification signature for which verification is requested, by using the data collected by said verification data collection processing;

a verification log creation ~~processing~~ process for creating a verification log recording said verification result and the data used for said verification and sending said verification log to said signer side apparatus as a verification requesting party;

a verification status registration ~~processing~~ process for recording a verification status to said database for said verification object signature requested; and

a verification status confirmation ~~processing~~ process for confirming said verification status for said verification vicarious execution processing requested.

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